

To Exhibit is not to Loiter:

A Multilingual, Sense-Disambiguated Wiktionary for Measuring Verb Similarity

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1. Introduction

Many dictionaries contain links to other words. You might find a link to the adjective *hard* within the lexical entry *difficult*, as these two words can be considered synonymous. While it is inherently clear for humans that the relation between *hard* and *difficult* refers to something that requires a lot of skills and effort (e.g., a *difficult/hard* problem), this is a great challenge for computer programs. The reason is that there are other meanings for the word *hard* such as being tough (e.g., only a few people are *hard* enough) that are not synonymous to *difficult* (*only a few people are *difficult* enough).

The same applies to translations. There is, for example, the German translation *schwierig* for the English *hard*, however only in its sense of requiring skills/effort (e.g., ein *schwieriges* Problem [a *hard* problem]). The meaning of being tough cannot be translated to *schwierig* (*nur wenige Menschen sind *schwierig* genug [*only a few people are *difficult* enough]). The goal of this annotation study is the creation of a gold standard dataset of sense disambiguated lexical relations (more precisely: synonyms, antonyms, hypo-/hypernyms, mero-/holonyms) and translations.

2. Task description

Along with this annotation guidebook, you'll receive one of four spreadsheets that can be opened in Microsoft Excel or OpenOffice (please contact the authors in case of any problems with opening the file). The spreadsheet contains a list of

- lexical relations between English words (dataset en-en),
- lexical relations between German words (dataset de-de),
- lexical translations from English to German (dataset en-de), or
- lexical translations from German to English (dataset de-en).

Each relation/translation is shown in a separate row. For each relation/translation, the source and target word is given – i.e., the two endpoints of the relation/translation. The meaning of the source and the target is described by a short textual description (a gloss). Additionally, the type of relationship (synonymy, antonymy, etc.) or the language of the translation is provided. In case the target word has multiple word senses, all of them are listed in a separate row.

Your task is to judge the appropriateness of each relation/translation. That is, we ask you to fill the “incorrect” column for each row with a

- 0 if the word senses of the source and target cannot be connected by this type of relation/translation, because they represent a wrong meaning in this context, or a
- 1 if the word senses of the source and target are appropriate for this kind of relation/translation.

3. Examples

source gloss	source	is correct	target	target gloss	relation type	Comment
The quality of a confident character not to be afraid or intimidated easily but without being incautious or inconsiderate	courage	1	cowardice	Lack of courage	HAS_ANT	<i>clearly opposite meanings</i>

source gloss	source	is correct	target	target gloss	relation type	Comment
The highest point of something	apex	1	acme	The top or highest point; pinnacle; culmination	HAS_SYN	
The highest point of something	apex	0	acme	(medicine) The crisis or height of a disease	HAS_SYN	
The highest point of something	apex	0	acme	Mature age; full bloom of life	HAS_SYN	

source gloss	source	is correct	target	target gloss	relation type	Comment
Aubergine, the edible fruit of the "Solanum melongena"	eggplant	0	aubergine	(British) an Asian plant, "Solanum melongena", cultivated for its edible purple, green, or white ovoid fruit	HAS_SYN	<i>fruit vs. plant</i>
Aubergine, the edible fruit of the "Solanum melongena"	eggplant	1	aubergine	(British) the fruit of this plant, eaten as a vegetable	HAS_SYN	<i>both are fruits</i>
Aubergine, the edible fruit of the "Solanum melongena"	eggplant	0	aubergine	a dark purple colour; eggplant	HAS_SYN	<i>fruit vs. color</i>

source gloss	source	is correct	target	target gloss	language	Comment
Obtainable without payment	free	1	umsonst	ohne Gegenleistung, ohne Geld bezahlen zu müssen	DE	<i>without payment</i>
Obtainable without payment	free	0	umsonst	ohne Erfolg, vergebens	DE	<i>not successful</i>
Obtainable without payment	free	0	umsonst	verneint: nicht grundlos, nicht ohne einen Zweck	DE	<i>without purpose</i>

4. Final remarks

- Do not imitate an algorithm, rely on your intuition.
- For each relation/translation, multiple “1”s are possible, i.e. more than one word sense of the target might be appropriate.
- Sometimes no “1” is suitable for a relation/translation, i.e. the correct word sense is not listed or the source and the target are not related.
- It is possible that the type of relation is not “suitable” – e.g., too course-grained synonyms (considering a *motorbike* and a *moped* synonymous) or too general hypernyms (an *apple tree* is a *plant* rather than a *tree*) – this kind of error should not be taken into account. Just concentrate on finding the correct word senses for the relations/translation rather than judging their consistency.
- Sometimes the glosses are trimmed or normalized by our software library and thus do not clearly describe the word sense. It is allowed to consult Wiktionary for the original gloss. You can easily query the Wiktionary by typing <http://en.wiktionary.org/wiki/<LEMMA>> in your browser (likewise for German).
- As the task gets monotonous at some point, you should consider making breaks during the annotation process. Depending on your personal speed, it should take about 2–3 hours.
- Please do not change the order of the rows/cols or their IDs. We’ll need this information for further processing. Of course, you are allowed to change the size of the columns to exactly fit on your screen.
- If you feel like explaining a certain decision, you can use the comment column. This is optional; you do not have to leave a comment for every pair!

After you finished your annotations, please fill out the last row with the annotation time needed in minutes. There is no correct solution for this task, so please, always judge the sense pairs based on your own understanding. We will measure the inter-annotator agreement of the submissions to find out, how often the participants agree or disagree.

Thank you very much for your contribution!